LPC# 1974740001 Will County
DESA Industries
ILD 051 069 854
SF/HRS

Site Reassessment

Prepared by:
Office of Site Evaluation
Division of Remediation Management
Bureau of Land

CERCLA
Site Reassessment

for:

DESA Industries
(a.k.a., AMCA International)
Park Forest, Illinois
ILD 051069854

PREPARED BY:
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF LAND
DIVISION OF REMEDIATION MANAGEMENT
OFFICE OF SITE EVALUATION

May 24th, 2013

SIGNATURE PAGE

Title: CERCLA Site Reassessment for DESA Industries

Preparer: Dave Reed, Project Manager, Office of Site Evaluation, Illinois Environmental Protection Agency

Dave Reed — Signature

8-27-13 — Date

Approval: Patrick Hamblin, ~~Acting Chief,~~ NPL COORDINATOR United States Environmental Protection Agency, Region 5

Signature

10/17/13 — Date

The approval signatures on this page indicate that this document has been authorized for information release to the public through appropriate channels. No other forms or signatures are required to document this information release.

TABLE OF CONTENTS

FIGURES

Section 1.0 Introduction

On February 22nd, 2012, the Illinois Environmental Protection Agency's (Illinois EPA) Office of Site Evaluation was tasked by the United States Environmental Protection Agency (U.S. EPA) Region V to conduct a Site Reassessment (SR) at the DESA Industries site in Park Forest, Will County, Illinois.

The Site Reassessment is performed under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) commonly known as Superfund. Current U.S. EPA policy stipulates that a Site Reassessment be conducted to determine the current status of DESA Industries site. The Site Reassessment will consist of an evaluation of recent information to determine if further Superfund investigations are warranted. The Site Reassessment will supplement previous work, and is not intended to replace previous CERCLA assessments.

The Site Reassessment is designed to evaluate recent information that will help determine if the site qualifies for possible inclusion on the National Priorities List (NPL), or should receive a No Further Remedial Action Planned (NFRAP) designation. At the conclusion of the reassessment Illinois EPA will recommend that the site be given a NFRAP designation, receive further Superfund investigations, or referred to another state or federal cleanup program.

DESA industries was initially placed on the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) data base on February 1st, 1984 under the name AMCA International. Placement of AMCA on this list was a result of a request for discovery action initiated by the Illinois EPA. The facility received its initial CERCLA evaluation in the form of a Preliminary Assessment (PA) report completed on July 1st, 1984. In 1990, the United States Environmental Protection Agency (U.S. EPA) hired Ecology and Environment Inc. (E&E) to perform a Screening Site Inspection (SSI). The sampling work for the SSI was performed on June 4th and June 5th, 1990 and the final report was completed on March 15th, 1991. At the completion of the first two steps in the CERCLA process (PA and SSI), conditions at DESA Industries were determined to pose enough of an environmental threat to move to the next step in the CERCLA process and proceed with more thorough investigations. In 1993, the U.S. EPA hired Black and Veatch Waste Science, Inc. (Black and Veatch) to perform an Expanded Site Investigation (ESI). The sampling work for the ESI was performed

from August 30th, 1993 to September 2nd, 1993 and the final report was completed on September 7th, 1994. Based on the results of the ESI, the site was eligible for further evaluation in the Site Assessment process, including consideration for proposal to the NPL or management as an Other Clean up Authority (OCA) site. The site has subsequently been managed as an IEPA State-lead OCA site.

The Site Reassessment Report will describe current site conditions and illustrate how DESA Industries has changed since the last CERCLA investigation of 1994. This report will contain a summary of existing information that will include site history, current site conditions, evaluate past analytical data, and evaluate past remedial activities. The Site Reassessment will also support emergency response or time-critical removal activities if they are warranted.

Section 2.0 Site Description and History

2.1 Site Description

The former DESA Industries (DESA) site is located at 24000 South Western Ave. in the Village of Park Forest, Will County, Illinois, approximately 16 miles south of Chicago. The site occupies about 85 acres in Section 11 and Section 12 of Township 34 North, Range 13 East. The latitude is 41.45667 and the longitude is -87.67101.

Several industrial buildings and a parking lot occupy approximately twelve acres in the southeastern part of the site. The buildings are surrounded by a fence. Manufacturing activities take place inside the fence. A parking lot entrance, located near the southeastern corner of the property, allows entry from Western Avenue. At one time, the facility operated an Imhoff tank and sludge drying beds; the inactive system is located near the west edge of the property line. The remaining 73 acres of the site are heavily-wooded and unfenced. The Thorn Creek Forest Preserve is adjacent to the northern and western site boundaries. The site is located in a mixed residential/commercial/light industrial setting.

The site topography is generally flat, and contains a marsh north of the manufacturing buildings. Site runoff flows northward from the paved area of the parking lot and around the buildings in the marsh. The marsh area drains into an unnamed creek which flows northeast intermittently. The creek passes through a culvert under the access road and continues to the northeast, where it eventually flows under Western Avenue and into Thorn Creek. Thorn Creek

eventually empties into the Little Calumet River. Scattered residences and residential subdivisions are located primarily to the south and to the east of the site. Currently, Continental Midland LLC owns the site and manufactures fasteners there.

Census data has been compiled and formatted for use in GIS applications by ESRI, a GIS software company subdivisions are located primarily to the south and east of the site, but are within one mile. ESRI used demographic data from the "Census 2000 Summary File" represented by Census Block Centroids to generate data that can be overlain onto maps for analysis (ESRI). In order to calculate population in areas surrounding the site, the ESRI census data was overlain onto a map from the region and queried based on distance from the site's boundary. Population data based on GIS analysis for areas surrounding the site is shown below. A map illustrating the site with 4-mile distance rings can be found as an attachment to this report.

Population within four miles of the site

Distance (mi)	Population
On-Site	0
¼ mile	12
½ mile	289
1 mile	4198
2 miles	23,287
3 miles	50,570
4 miles	84,914

2.2 Site History

Prior to 1946, the entire area was farmland. Mall Tool Company began operations at the site in late 1946 or 1947, using two Quonset huts and a maintenance building. The manufacturing area was bounded on the north and the south by the current property fences, on the east by Western Avenue, and to the west by the dirt road just to the east of the concrete pad on which a Quonset hut stood. In addition to the main plant area, an Imhoff wastewater treatment plant was operated near the west property line from about 1950 to 1976, at which time the plant was connected to the municipal sewer system. There was also a burn area between the Imhoff plant and the main plant where magnesium and other metallic chips were burned. These

chips came mostly from other plants of the old Mall Tool Company, which were located in Chicago.

In 1956, Remington Arms purchased operations from Mall Tool Company and continued the operations there until 1969, when DESA Industries (DESA) bought the property. DESA utilized the facility for the manufacture of chain saws, power actuated tools, small hand-held air tools, as well as machined fittings for screws and fasteners. In 1975 or 1976, United Dominion Industries, Inc. then known as AMCA International Corporation, purchased DESA and the associated real estate, but the plant continued to be operated under the DESA name and management until 1981 when AMCA's Consumer Products Division assumed control of the facility under the name Continental/Midland. In 1997, Continental Midland, Inc. sold the assets and land to Cordant Technologies Holding Company, and the facility became known as Huck-Continental Midland. In 1999, Alcoa purchased Huck. In February of 2004, Alcoa sold the property to Continental Midland, LLC, and Continental Midland, LLC is the current owner of record for the facility.

Manufacturing processes established by the Mall Tool Company in 1946 have continued with little change throughout the site's history. Some of the old processes have been simplified and others have been eliminated or sold. Plant operations include cutting, grinding, degreasing, plating, and painting of metal tools and products. More specifically, historical plant processes have included: chrome plating, copper plating, magnesium die casting, zinc electroplating, machining, vapor degreasing, paint stripping, and magnesium machining. Because the plant had so many different owners and operators since operations began, few written records were found.

2.3 CERCLA Investigative History

On October 4th, 1982, Illinois EPA received an anonymous complaint regarding illegal waste disposal practices at the site. On October 18th, 1982 the Illinois EPA took seven samples within the property. These samples revealed total and hexavalent chromium at a concentration of 1.2 ppm. On August 24th and 25th, 1983, the Illinois EPA conducted extensive soil sampling on-site with a drill rig. The sampling event included 46 samples within the property. The samples were sent to the laboratory and the results revealed magnesium at levels up to 500 ppm and PCBs at levels up to 2,600 ppm. The Illinois EPA requested that PCB contaminated soils be

remediated. However, a site representative later stated that the cleanup never occurred because the samples found to contain PCBs were random, the result of machine shop spills, and were not indicative of past disposal operations by the company for the property.

The site was initially placed on the CERCLIS on February 1, 1984, as a result of a request for discovery action initiated by the Illinois EPA. A CERCLA Preliminary Assessment Report was filed on May 15, 1984 using the data from the previous two sampling events mentioned above. At the completion of the Preliminary Assessment, the site was deemed enough of an environmental threat to move further in the CERCLA process. The report recommended that the site receive a more thorough investigation to better identify the scope of the contamination. Additionally, the State of Illinois through the Illinois Attorney General's Office filed a "Notice of Intent to File Suit" under the Toxic Substances Control Act (TSCA) in June 1984.

In 1990, U.S. EPA hired Ecology and Environment, Inc. (E&E) to perform a Screening Site Inspection. On June 4th and June 5th , 1990, five soil samples, two sediment samples, and four monitoring wells samples were collected on the AMCA site by E&Es field investigation team in order to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The final report was issued on May 23, 1991. The soil sample analysis indicated the presence of semi-volatile organic compounds and inorganic analytes, indicating that soils, sediments, surface water, and groundwater were areas of concern. The SSI reported that contaminated soils resulted from AMCA's waste storage and disposal practices. The SSI stated that contaminants in surface water runoff flow into the manmade ditch northwest of the main manufacturing building and then into the marsh. The unnamed creek drains the marsh. E&E recommended in the report that the AMCA site move forward in the CERCLA process because of the contamination that was found and to better delineate the migration pathways.

In 1993, U.S. EPA hired Black and Veatch to perform an Expanded Site Investigation. Field work for the event started on August 8th, 1993 with the installation of three bedrock monitoring wells. The well installation was completed and the wells were allowed to develop until September 2, 1993 when Black and Veatch returned to sample the monitoring wells. Other samples were collected that same week as well. On August 30th, 1993, three onsite and one offsite sediment samples were collected. Water from five residential wells close to the site were

sampled on August 31st, 1993. The Black and Veatch ESI final report dated July 25, 1994 indicated that there was enough contamination on-site to be an environmental threat to the site and the surrounding community. Illinois informed the responsible parties the site could potentially qualify for proposal to the NPL and negotiations began on a Consent Order. The site has since been managed as an IEPA State-lead OCA site.

Section 3.0 Other Cleanup Authorities and Activities

In 1985, DESA hired Environmental Resources Management (ERM) to sample suspect areas on site. Analysis of shallow soil samples collected on a grid in potentially-contaminated areas did not indicate the presence of inorganic analytes or PCBs, and surface water samples analysis indicated low levels of hazardous substances. ERM installed and sampled five shallow groundwater wells and analysis indicated PCBs presence in one well. ERM had test pits dug in the area adjacent to the north of the large burn area and along the dirt roadway north of the manufacturing area. Composite soil samples were collected from various depths at each of the test pits and the sample results showed elevated amounts of inorganic analytes, organic analytes and PCBs.

This site is under a Consent Order between United Dominion Industries, Inc. and the State of Illinois [People v. United Dominion Industries, Inc., DESA Industries, Inc., and Continental Midland, Inc. (not the same as the current property owner and operator, Continental Midland, LLC) (Will County) No. 93 CH 8351, February 23, 1996]. The Scope of Work (SOW) attached to the Consent Order directs the settling defendants to perform all work pursuant to Section 121 of CERCLA, any applicable State law, the National Contingency Plan (NCP), and the Illinois EPA Tiered Approach to Cleanup Objectives (TACO) (35 Ill. Adm. Code Part 742). In addition, the SOW directs the settling parties to conduct an ecological assessment in accordance with federal guidance documents. SPX Corporation is now responsible to the State of Illinois for responding to the 1996 Consent Order on behalf of United Dominion and DESA Industries. Because this site was under a Consent Order, the site has been managed as an IEPA State-lead OCA site.

On May 6, 1997, the Illinois EPA investigated a reported oil release to surface water on DESA property. On April 10, 2001, Illinois EPA met with representatives of the facility for an

update of conditions and a site tour. During this site visit, Illinois EPA staff observed an oil sheen on the surface water, coming from the outfall on the Unnamed Creek that empties into Thorn Creek. Additional discharges of oil to the Unnamed Creek were observed on May 11, June 2, June 8, and August 21 of 2001. An investigation was conducted after the May release and short-term measures were put in place to minimize the amount of oil discharged into the stream. Long-term corrective measures were taken including new equipment to reduce the discharge.

From May of 2001 through October of 2002, further characterization was performed for the storage and shipping building addition and the detention pond expansion. Soil PCB contamination was found from less than 1 mg/kg to 81 mg/kg. Contamination was also found in the vicinity of the backflow prevention and the gabion structure.

In 2003, MFG (consultant to Alcoa), conducted a Phase I site reconnaissance, interviews with representatives of the property owner, and visual observations of neighboring properties. In addition, MFG submitted a Comprehensive Data Report of PCB results in soil for work related to the storage and shipping building expansion.

In August and September 2007, ERM collected soil samples from the marsh, the area behind the waste storage area, the roadway, and the top of banks along the creek and northeast drainage ditch, which were analyzed for PCBs, VOCs, SVOCs, PNAs, inorganics, and hexavalent chromium, and select TCLP inorganics. In addition, surface water samples and sediment samples were collected and analyzed for PCBs, VOCs, PNAs, and inorganics. Surface water samples were analyzed for pH, hexavalent chromium, and water hardness. ERM installed monitoring wells and collected groundwater samples for PCBs, VOCs, PNAs, and dissolved inorganics. Results from this investigation found PCBs in one of the soil locations at 1,054 mg/kg. Several VOCs were found in the soil samples as well. Trichloroethylene was found at 11mg/kg, cis-1,2-dichloroethylene was found at 2.9 ug/kg, and vinyl chloride was found above background concentrations. For the groundwater samples collected from the monitoring wells, vinyl chloride was found at 4.9mg/L, cis-1,2-dichloroethene was found was 3.7mg/L and bromoform was found at 6.9mg/L.

In May 2008 ERM collected on-site soil, sediment, and waste characterization samples from 41 on-site locations along the Unnamed Creek in the marsh, and three off-site locations. In addition, ERM collected sediment samples from one off-site location within the right-of-way of

the Will County Department of Highway. The soil samples were found to contain PCBs at 40.4 mg/kg on site at 1 to 2 feet in an area near the gabion structure. In an area east of the gabion but north of the Unnamed Creek, soil samples taken in the top six inches had PCBs at 22,780 mg/kg, but the PCBs at the same location at 1 to 2 feet had PCBs at 5,750 mg/kg. Off-site soil samples taken east of Western Avenue found PCBs at 8.12 mg/kg and 26.9 mg/kg. An off-site sediment sample taken east of Western Avenue found PCBs at 0.2 mg/kg

In 1989, Continental Midland Inc. dredged the sediments in the Unnamed Creek without notifying Illinois EPA or U.S. EPA. It is believed that this action removed some of the contamination. Additionally, in 2002 partial remediation of PCB-contaminated soils that exceeded the Illinois EPA TACO Tier 1 remediation objective of 1ug/kg was conducted by Alcoa in areas where a warehouse expansion was occurring. The remediation ceased later in 2002 due to a work stoppage because of a fatality during the construction. In the fall of 2004, the new owners (Continental Midland LLC) contacted Illinois EPA to request assistance with the building construction and the known contamination at the facility. Alcoa declined to complete the remedial activities because they were neither the owner nor the operator at the site.

Section 4.0 Summary and Conclusions

Several rounds of soil sampling have been performed at the site. There were two separate sampling events perform by the Illinois EPA that resulted in the site being added to CERCLIS and a PA being completed in 1984. DESA contracted their own site remedial investigation in 1986 with ERM. There was an SSI completed in 1991 by E&E. The results from that investigation prompted an ESI which was performed by Black and Veatch that was completed in 1994.

In 1996 a consent order between United Dominion Industries, Inc (the parent company of DESA) and the State of Illinois came into effect. The Scope of Work (SOW) attached to the consent order directed the settling defendants to perform all work pursuant to Section 121 of CERCLA, any applicable State law, the National Contingency Plan (NCP), and the Illinois EPA Tiered Approach to Cleanup Objectives (TACO) (35 Ill. Adm. Code Part 742). In addition the SOW directs the settling parties to conduct an ecological assessment in accordance with federal guidance documents. SPX Corporation is now responsible to the State of Illinois for responding

to the 1996 consent order on behalf of United Dominion and DESA Industries. Because the site was under a consent order, the site has been managed as an IEPA State-lead OCA site. Since the consent order, Illinois EPA has worked with DESA on many different investigations and for many different types of occasions. The parties continue to work together to investigate the property and surrounding areas and then to come up with plans to prevent further contamination of the property as was the case of the oil discharges to the Unnamed Creek mentioned in the previous section and the short-term and long-term corrective measures that were taken to reduce the discharge.

Section 5.0 References

Black and Veatch Waste Science, Inc. (BVWS), 1991. Quality Assurance Project Plan for Region V Superfund Site Assessment Program.

Black and Veatch Waste Science, Inc. (BVWS), 1994. Expanded Site Inspection report for AMCA International Corp./Continental-Midland, Park Forest, IL. USEPA ID: ILD 051 0690854

Consent Order between United Dominion Industries, Inc. and the State of Illinois [People v. United Dominion Industries, Inc., DESA Industries, Inc., and Continental Midland, Inc. (Will County) No. 93 CH 8351, February 23, 1996].

Ecology and Environment, 1991 Screening Site Inspection report for Continental-Midland/AMCA International Corp. , Park Forest, IL. USEPA ID: ILD 051 0690854

Environmental Resources Management – North Central, Inc., 1986. Remedial Investigation Program for DESA Industries, Phase I, Volume 1.

Huges, G.M., P. Kraatz and R.A. Landon, 1966. Bedrock Aquifers of Northeastern Illinois, Illinois State Geological Survey, Circular 406.

U.S. EPA web site:
http://cfpub.epa.gov/supercpad/cursites/cactinfo.cfm?id=0500353

Viscoky, Adrian, Marvin Sherrill, and Keros Cartwright, 1985, Geology Hydrology, and Water Quality of the Cambrian and Ordovician Systems in Northern Illinois, Illinois State Geological Survey, Champain, Illinois.

ESRI. ESRI Data & Maps 2002, An ESRI White Paper. Electronic Report at http://support.esri.com/index.cfm?fa=knowledgebase.whitepapers.viewPaper&PID=16&MetaID=1292. Accessed December 2007.

United States Department of Commerce, Economics and Statistics Administration, Bureau of Census. Census 2000: Summary File 1. In: ESRI Data & Maps 2006 Data Update, http://www.esri.com/data/data-maps/overview.html. Accessed July, 2007

Figure - 1

Figure 1
SITE LOCATION MAP

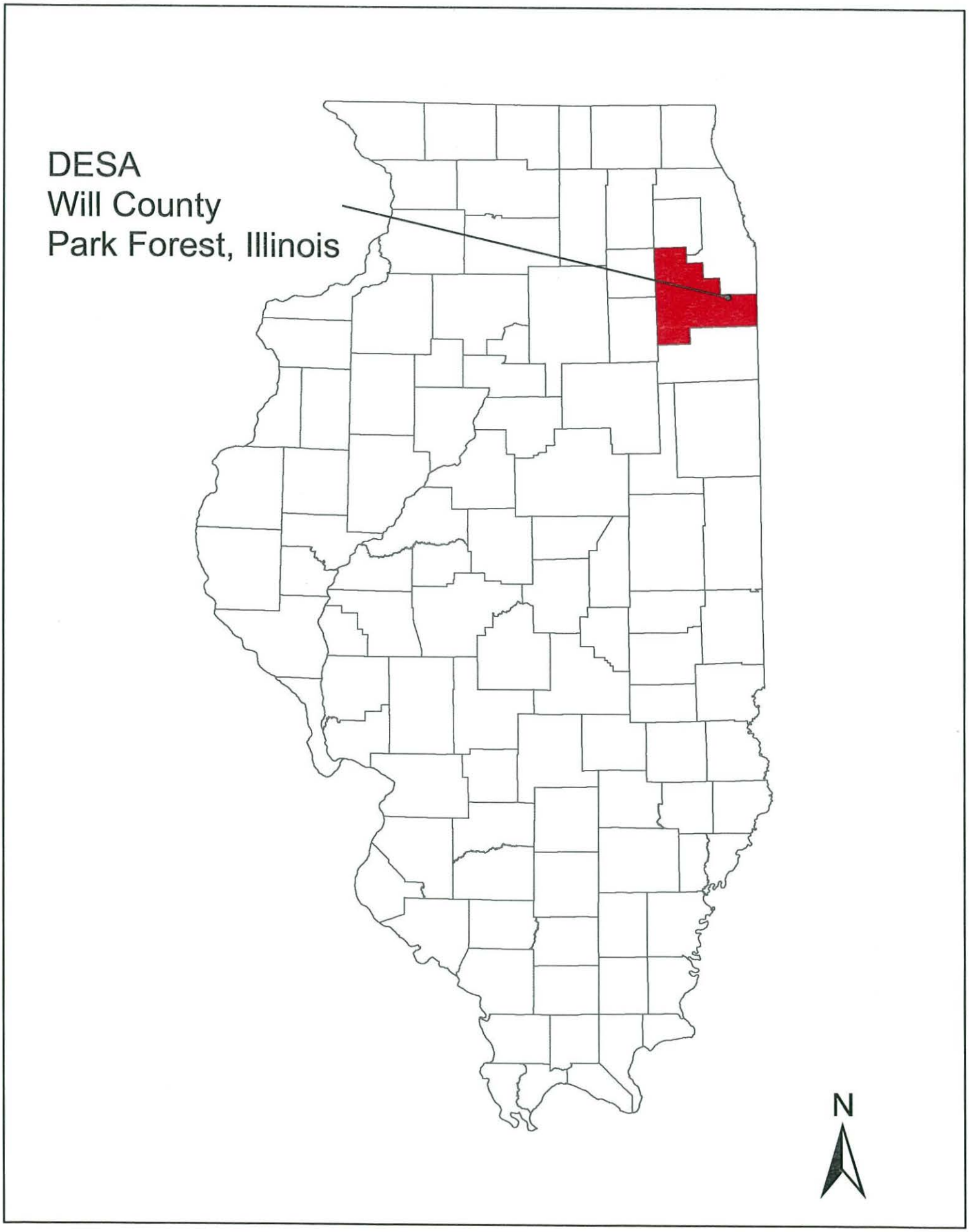


Figure - 2

Figure 2
DESA Topographical Map

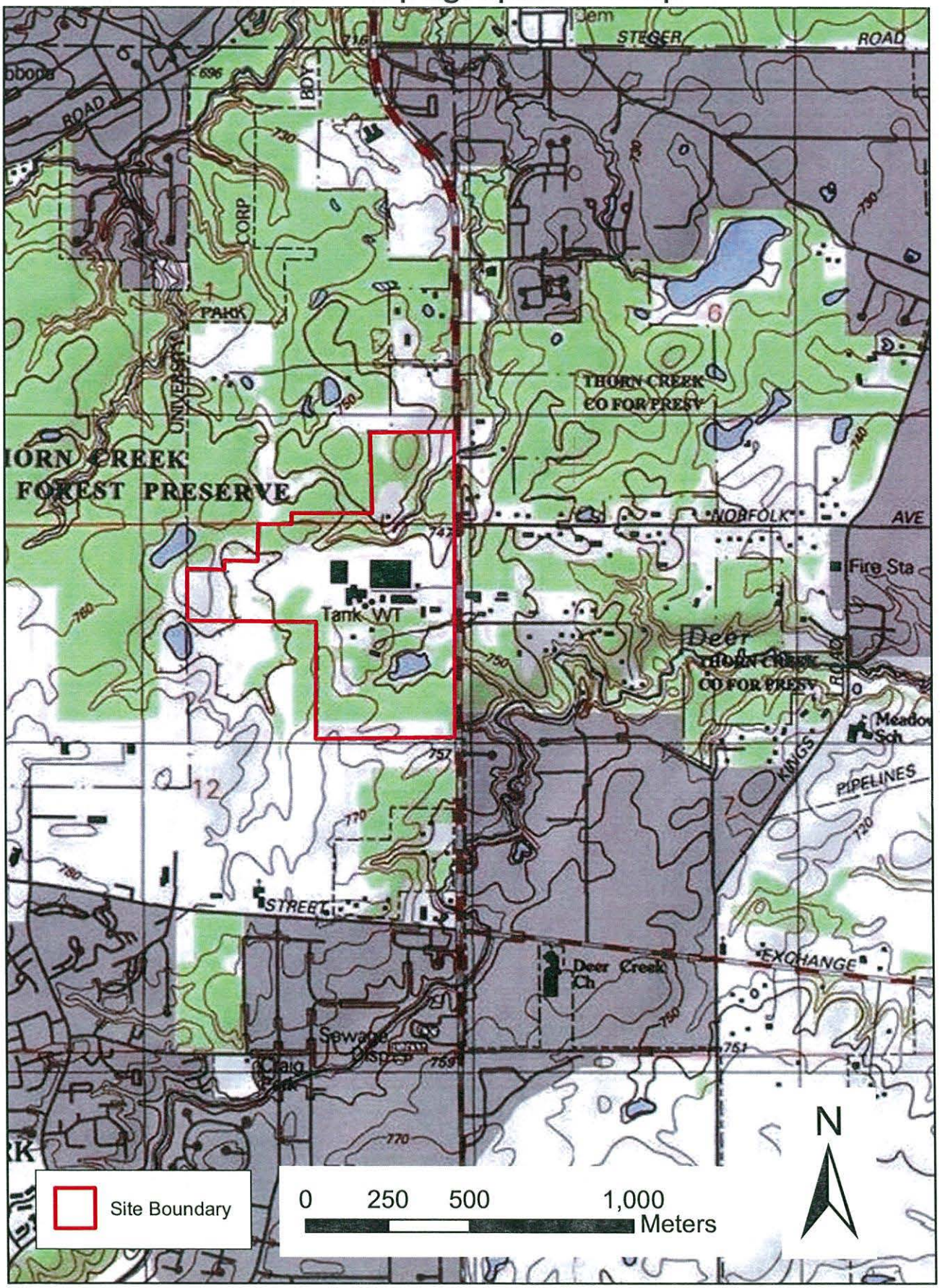


Figure - 3

Figure 3
DESA Aerial Photograph

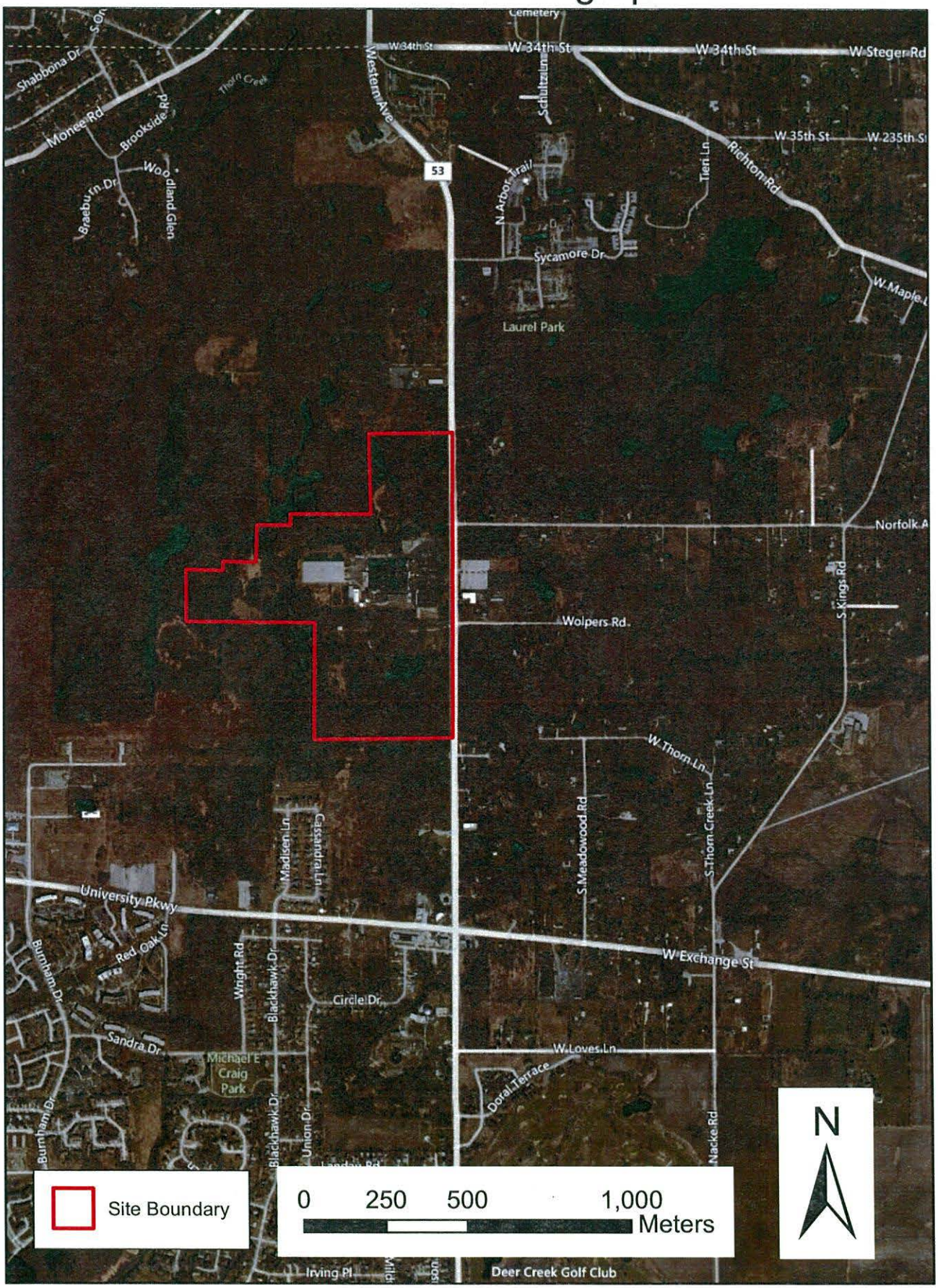


Figure - 4

Figure 4
DESA 4-Mile Radius Map

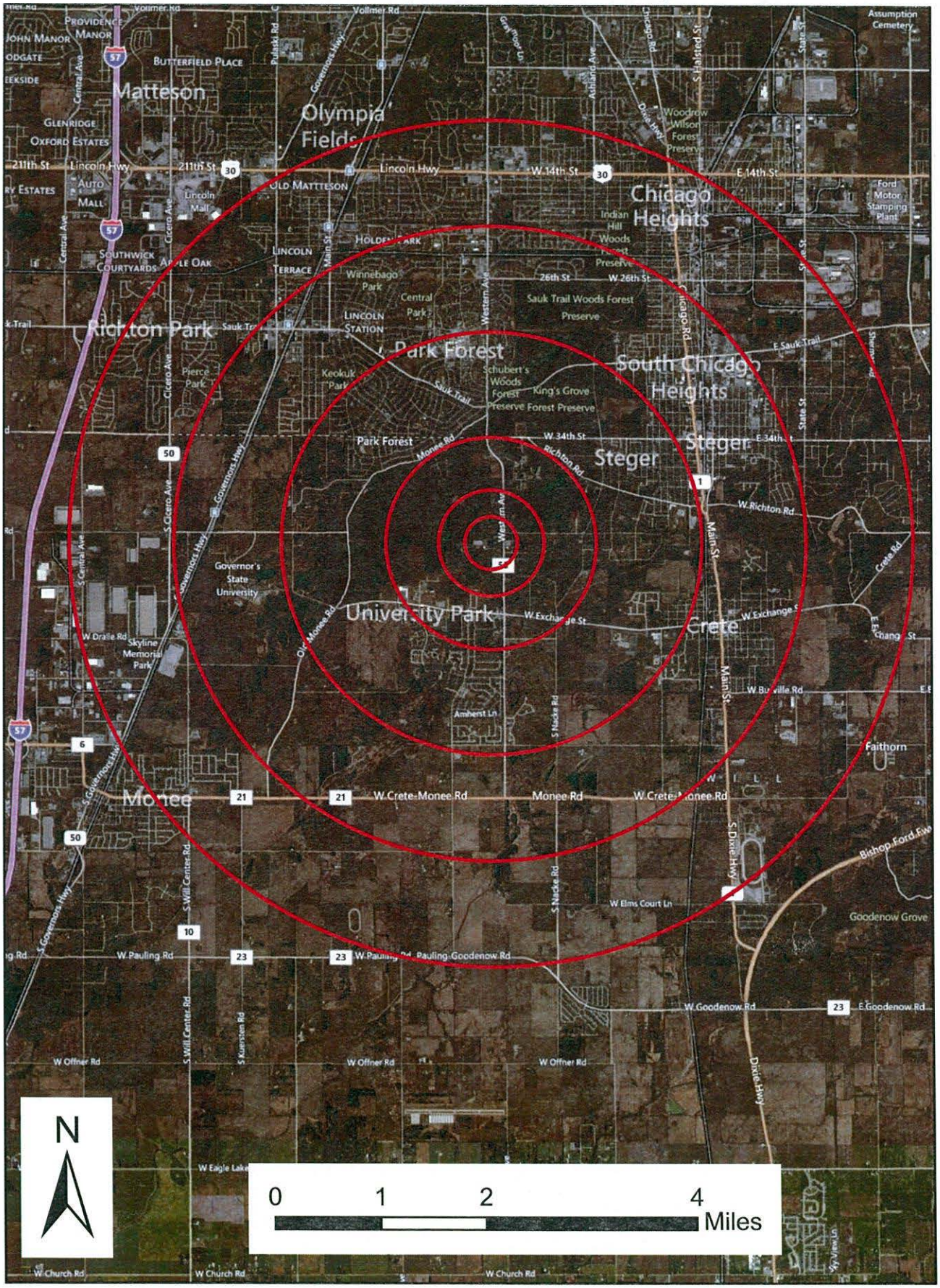
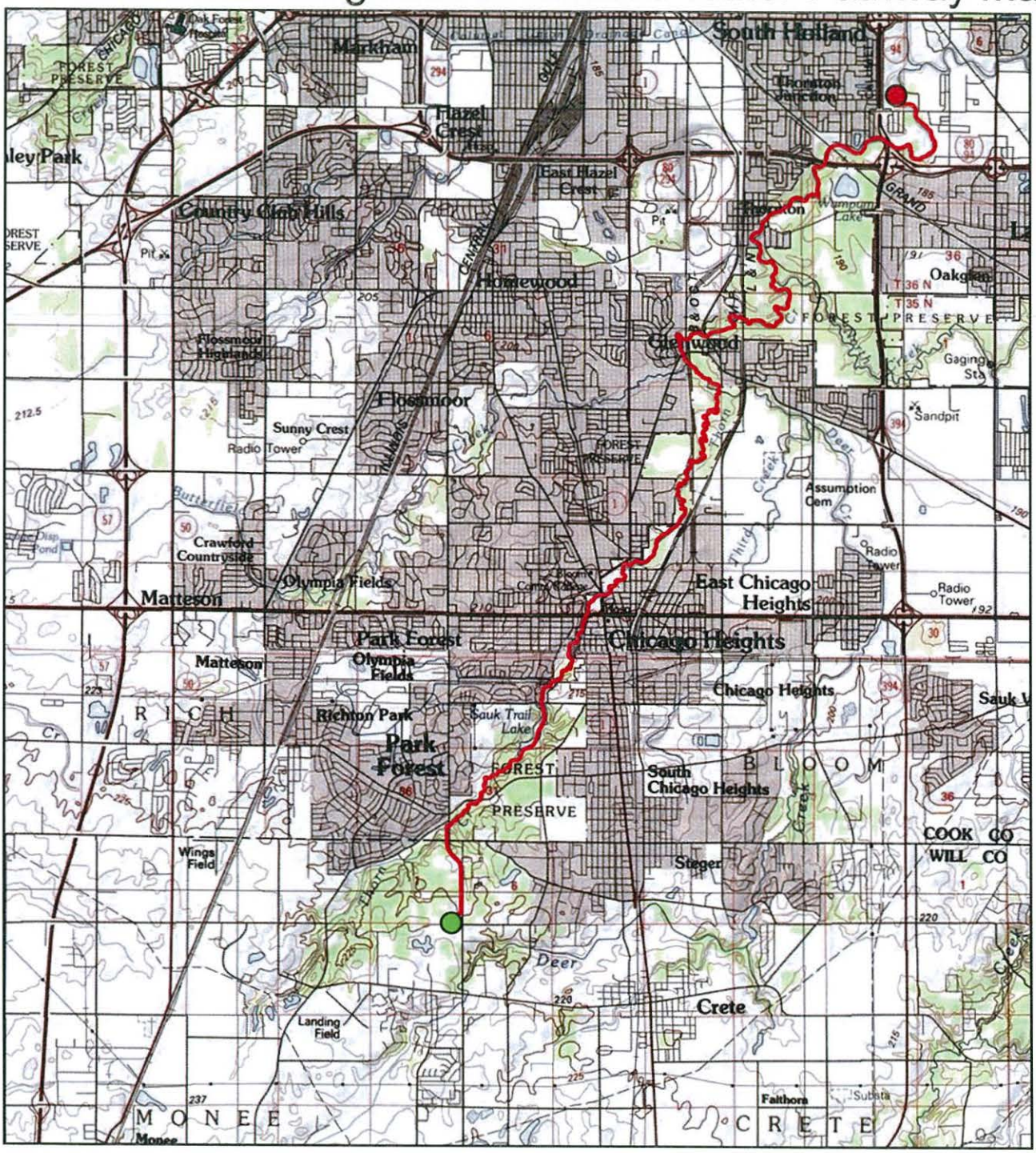


Figure - 5

Figure 5
15-Mile In-Water Segment of Surface Water Pathway Map



Legend

- Probable Point of Entry
- In-Water Segment
- 15-Mile Target Distance Limit

N